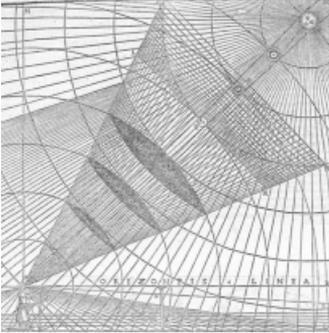


David Gissen

Architecture's Geographic Turns



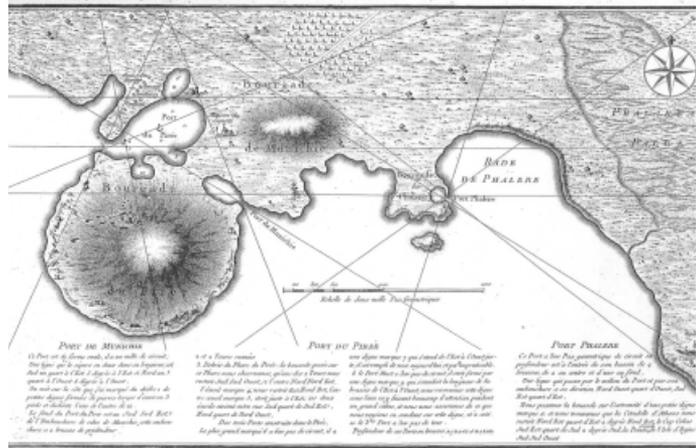
ARCHITECT WITH CROSS-STAFF.
FROM CESARE CESARIANO,
VITRUVIUS, 1521. ALL IMAGES COURTESY THE AUTHOR.

1. On the datascape concept see James Corner, "Eidetic Operations and New Landscapes," in *Recovering Landscape: Essays in Contemporary Landscape Architecture* (New York: Princeton Architectural Press, 1999); the best summary of research architecture can be found in Kazys Varnelis, "Is there Research in the Studio?" *Journal of Architectural Education* (2007): 11–14.

Maps of ethnographic distribution, economic data, and social displacements abound in contemporary works of architectural analysis. Explorations of economic free trade areas, new border zones, settlements, slums, and emerging urban conurbations rely on cartographic techniques, data, and fieldwork to articulate both new forms of architecture and new positions for architecture. This work advances a more research-based role for architectural theory – often labeled “datascaping” and, more recently, “research architecture” – that is materialized within a set of seemingly realist and post-theoretical approaches and methods.¹ But displaced in discussions of this and similar recent work are the actual transdisciplinary alignments taking place in our field as architects increasingly chart emerging territories and analyze and crunch economic, social, and ethnic data. I would argue that an important feature of what is happening within this general turn is a more performative turn toward geographical methods and imagery in contemporary architecture. This represents less a wholly new form of practice or an abandonment of a previous generation’s critical discourse than a new actualization of the conceptual links between the discipline of architectural theory and geography. Architecture has a historically deep, though virtually unexplored link to geographic theory – a field that examines, among many things, how difference is produced on the earth. Contemporary architectural/geographic engagements extend links between these disciplines that are traceable to at least the 16th century. In many ways the current research practice framework represents less a form of “post-theory” and more the late stage of a long project within architectural theory, a project once about cosmography and, within modernity, the architectural concept of territory; and a project worthy of an examination in tandem with contemporary work.

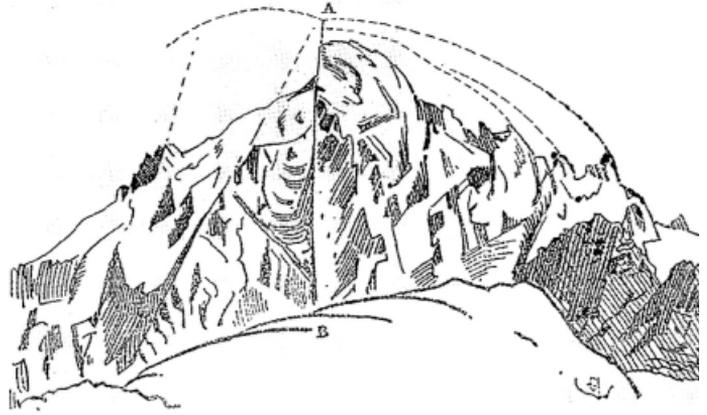
To explore the contemporary relations between architecture and geography we might begin by quickly reviewing the history of these engagements in early 16th-century Vitruvian texts; 18th-century works funded by nascent states; and 19th- and 20th-century functionalist/rationalist architectural theory. All of these explorations involve key architectural engagements of the earth – charting, exploration, mapping –

MAP OF THE PORTS OF PIRAEUS, PHALERON, AND MUNYCHIA. FROM *THE RUINS OF THE MOST BEAUTIFUL MONUMENTS OF GREECE*, CLAUDE-ANTOINE LITTRET DE MONTIGNY, AFTER JULIEN-DAVID LE ROY, 1770.



2. The geographic proto-science moving through Vitruvian treatises is documented in Denis Cosgrove, “Ptolemy and Vitruvius: Spatial Representation in the Sixteenth Century Texts and Commentaries,” in *Architecture and the Sciences: Exchanging Metaphors*, eds. Antoine Picon and Alessandra Ponte (New York: Princeton Architectural Press, 2003), 20–51.
3. The history of concepts of territory in early-modern French work can be found in Antoine Picon, *French Architects and Engineers in the Age of Enlightenment* (Cambridge: Cambridge University Press, 1992).

and the innovative use of instruments and theory. Within the classical humanist tradition, one of the most notable works of architectural theory that elaborated links between architecture and geography is Cesare Cesariano’s translation of Vitruvius into Italian.² In addition to the innovative text and its evocative illustrations of the birth of fire, primitive dwellings, and human proportions, Cesariano included illustrations that demonstrated links between architectural theories of perspectival vision and space and the practice of geographic cosmography. In both his “chorographic map” of Italy and an illustration of an architect using the geographer’s cross-staff, Cesariano intertwines the role of the architect as perspectival constructor and geographic cartographer – projecting his vision onto sky and earth. This cosmographic concept that linked architecture and geography through notions of terrestrial and celestial reflection inspired additional geo-architectural tracts in Italian treatises, but would eventually be replaced with more empirical methods by the 18th century – built around concepts of direct observation and state-sponsored exploration.³ Eighteenth-century French work linked architecture and geography through the charting and development of national territories – by Pierre Patte, Claude-Nicolas Ledoux, and others – and through the exploration of new social and artistic realms. The work of Julien-David Le Roy is remarkable in this latter respect, particularly his explorative ventures in Greece. Le Roy’s *The Ruins of the Most Beautiful Monuments of Greece* (1758) was intensely cartographic in its representations of both ruins and the territories within which these ruins were found. The work in Greece involves a literal geographical element that is part of an emerging international practice of cartographic science. The French were replacing the Dutch as the chief Western



5. — L'aiguille du Midi.

4. Information on the geographical imagination of Le Roy is from Robin Middleton, "Introduction," in Julien-David Le Roy, *The Ruins of the Most Beautiful Monuments of Greece* (Los Angeles: Getty Publications, 2004), 137–44.

5. See, for example, Eugène Emmanuel Viollet-le-Duc, "Architecture," in *The Foundations of Architecture: Selections from the Dictionnaire Raisoné*, trans. Kenneth D. Whitehead (New York: George Braziller, 1990), 31–102, and Viollet-le-Duc, *Mont-Blanc: A Treatise on its Geodesical and Geological Constitution* (London: Sampson Low, 1877).

6. See Paula Young Lee, "The Rational Point of View: Eugène Emmanuel Viollet-le-Duc and the Camera Lucida," in *Landscapes of Memory and Experience*, ed. Jan Birksted (London: Routledge, 2000), 63–76. I am grateful to Martin Bressani, who reminded me of Viollet-le-Duc's work on Mont-Blanc.

map producers of Europe. The work also contains a metaphoric conception of the geographical that ties the exploration of the world to constant movement (circulation) and the direct observation of its artifacts while in motion.⁴

Such links between architecture and geography continue in a more historical mode in the 19th century, primarily as an aspect of modern architectural theory concerned with problems of historical causality. Eugène Emmanuel Viollet-le-Duc conjoined architectural and geographic disciplines through Humboldtian and Cuvierian notions of biological emergence, documentation, and distribution. Alexander von Humboldt, the founder of modern geography, observed the distribution of plant species within specific climatic regions, linking the emergence of plant life to larger bio-regional processes. These radically innovative ideas became part of the doctrine of the French Geographic Society, which Humboldt helped to establish, and his concepts found some expression in Viollet-le-Duc's use of maps as contextual markers of climatic and social difference, factors he believed informed the distribution of building practices. Viollet-le-Duc's geographically inspired work also entailed his examination of the transformations of Mont-Blanc in the French Alps.⁵ His documentation of Mont-Blanc involved the rigging of instrumentation systems (the "tele-iconograph") that spanned geographical and architectural forms of observation.⁶ Here we see the architectural theorist not only employing geographical concepts and methods, but also practicing *as a geographer* in documenting natural phenomena. Such efforts that speak of connections between architecture and geography specifically, and architecture and science more deeply, extend well into the 20th century with Buckminster Fuller's development of the Dymaxion projection of the Earth. Fuller



realized a new image of the classical humanist concept that buildings and world could be conflated in a single cartographic system.

Contemporary negotiations of the geographical in architecture are partially rooted in earlier efforts, and they also reflect particular postwar developments. Contemporary practices negotiate a range of often conflicting geographic concepts, including the quantitative-empirical turns of postwar geography, the decisive split between physical and human geography, the traditions of radical geography (influenced by such diverse sources as the “psycho-geography” of the Situationists and the Marxist geographers David Harvey and Neal Smith), and key absorptions of urban geographic concepts in the 1960s by Aldo Rossi and Kevin Lynch. While specific cultural-geographical methods directly influenced historical projects at architecture schools such as Berkeley or UCLA in the 1970s and 1980s (see the work of J. B. Jackson, Denis Cosgrove, and Paul Groth as examples), evidence of a specific geographic school directly impacting contemporary architectural design theory is much harder to assess. Within the last 10 years, a looser set of geographic concepts that moves through architectural efforts can be found in terms such as *data* and *field*, the term *scape* (as absorbed by social scientist Arjun Appadurai), and something that is simply termed *research*, which incorporates maps and data tables as dominant forms of synthesis and presentation.⁷

The ideas of “datascape” and “research architecture” are arguably the most cutting edge of emerging architectural/geographical entanglements. Datascape (the admittedly more alluring but less-used term) and research architecture often present a performative use of geographical research methods. Demographic information and space are linked in a new type of territory that is infused with the image of data – a type of site charted by a particular data-driven architectural project. In an article reviewing these contemporary developments in

7. See Winy Maas, “Datascape,” in *FARMAX: Excursions on Density*, eds. Winy Maas et al. (Rotterdam: O10 Publishers, 1996), James Corner, “Eidetic Operations and New Landscapes,” and Kazys Varnelis, “Is There Research in the Studio?”

the work of Rem Koolhaas/OMA and MVRDV, James Corner provides a summary of the use of geographical forms of data and maps in contemporary architectural practice:

These are revisions of conventional analytical and quantitative maps and charts that both reveal and construct the shape-forms of forces and processes operating across a given site. . . . Where they differ from the quantitative maps of conventional planning is in their imaging of data in knowingly rhetorical and generatively instrumental ways. . . . The artistry lies in the use of the technique, how things are framed and set up. There is no assumption of truth or positivist methodology.⁸

8. Corner, 165 (emphasis in original).

9. See, for example, Keller Easterling, *Enduring Innocence: Global Architecture and Its Political Masquerades* (Cambridge: MIT Press, 2005) and Fernando Romero, *Hyper-Border: The Contemporary U.S. – Mexico Border and its Future* (New York: Princeton Architectural Press, 2007).

Both authors share enormous sympathy for the inequities their work uncovers, but they often suspend an explicit evaluation of the data.

10. On post-criticality in recent research work see Varnelis; in recent design efforts see George Baird, “Criticality and its Discontents,” *Harvard Design Magazine* 21 (Fall 2004/Winter 2005), and Robert Somol and Sarah Whiting, “Notes Around the Doppler Effect and Other Moods of Modernism,” *Perspecta* 33 (2002): 72–77.

Corner recognizes how this contemporary work actually marks a suspended empiricism – simultaneously driving and mocking the driving of design by accurate geographical information and imagery. Other authors of this data-driven approach – better placed under the broad umbrella of research architecture – often suggest that their work uncovers an overwhelming cache of seemingly unprocessable data, revealing staggering levels of (often frightening) statistical information.⁹ Thus, while not disarticulating the importance of data, specific conclusions and evaluations based on the data are often delayed or suspended. Because both forms of these practices thrive on the visible use of geographical methods of acquiring data (versus a more central use of critical theory) they have been associated with a “post-theoretical” approach to architecture.¹⁰ However, they are anything but. This is not only because they emerge out of practices situated deep within architectural theory – the geographical project of architectural theory – but also because geography is a deeply theoretical discipline. There is no “post-theoretical” project that is also at one and the same time driven by cartographic images and data.

Contemporary geographical methods in architectural design raise a series of significant issues that touch on, but are not solely about, interdisciplinarity, the presence or absence of theory, or the quality of statistical data. As we have seen, in the 19th century and mid-20th century, architects who explored geographical concepts *happened* to make cartographic representations, but what is significant about contemporary work is that the map is becoming more dominant. Data- and research-driven practices operationalize maps as they explore issues of population distribution, congestion, distributions of nature, and economic exchange. The territorial nature of cartography appears to be replacing plans, or even site drawings, as the fundamental conveyor of a building’s operative strategy – that is, its daily workings.

MVRDV, STILL FROM THE ANIMATION, "METACITY/DATATOWN," 1999. IMAGE COURTESY MVRDV.



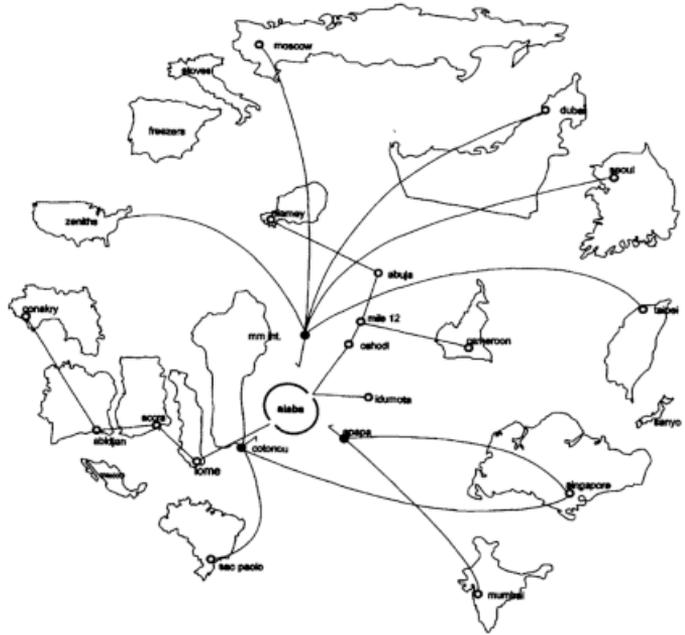
One of the goals in data architecture and research architecture is to give the cartographic project a status that rises to, if it is not equivalent to, the traditional relation between plans, sections, and the architectural image that they often appear to pre- (or partially) determine. Today, buildings and architectural concepts often are being represented as territorial processes, and the drawing technique used to represent them is cartographic – that is, geographical in concept. Such a cartographic imagination links the seemingly disparate practices of contemporary Dutch efforts (mentioned earlier) that ebulliently chart the spaces of capital and their more guarded American counterparts.¹¹

All of these recent developments, which begin to collapse anew the geographical and the architectural, also raise another series of important questions that touch on architectural research and theory – such as, how effective are the geographical methods and how accurate the results? How do we evaluate the answer to this question as architects? And how do we evaluate this when some architects may claim (as Corner notes above) that their geography is either the image of geography or represents the impossibility of an accurate geography? Some geographic work by architects is truly extraordinary. For example, contemporary physical geographers who examine glaciers still refer to work by Viollet-le-Duc on the glaciers of Mont-Blanc; and contemporary urban geographers often refer to Keller Easterling's work on American cities; but some contemporary geographers also find that contemporary geographical work by architects is fraught by its lack of attention to geographical theory and concepts.¹² The geographer Matthew Gandy recently explored Rem Koolhaas's and the Harvard Project on the City's work in Lagos, essentially reviewing the geography of that important (and generally favorably reviewed) project,

11. See, for example, the similarities between Winy Maas, *Metacity/Datatown* (Rotterdam: NAI Publishers, 1999) and Keller Easterling, *Organization Space* (Cambridge: MIT Press, 1999).

12. See Matthew Gandy, "Learning from Lagos," *New Left Review* 33 (May/June 2005): 37–52, and Stephen Graham and Simon Marvin, *Splintered Urbanism* (London: Routledge, 2002).

HARVARD PROJECT ON THE CITY,
ALABAN PANGAEA. FROM “LAGOS,”
Mutations, 2002. IMAGE COURTESY
OMA.



13. On the Lagos project, see Harvard Project on the City (2002), “Lagos,” in *Mutations* (Barcelona: Actar, 2002), 651–719, and Gandy, “Learning from Lagos.”

14. Gandy, 42.

which is a significant aspect of the emerging field of research architecture.¹³ From Gandy’s perspective, the geographical methods in that project contain several problems in theory and method, and this comes from a relatively sympathetic contemporary geographer. On one level, Gandy probes the lack of auto-critique concerning the position and methodology (documentation) of the researchers. This entails the site of observation, the literal positions from which data is collected, and the drawing techniques that convey the overall geographical conception of the space. Both the text and imagery emerging from Koolhaas’s project suggest that Lagos is a dynamic world-force set to redefine urban geospatial relations. Gandy considers this and Koolhaas’s assertion that Lagos is the future of modern urbanism and that “we,” in the West, “may be catching up to Lagos.” But he argues that Lagos’s true geography is obscured from Koolhaas via his team’s methods, and that the “informal economy of poverty celebrated by the Harvard team is the result of a specific set of policies pursued by Nigeria’s military dictatorships over the last decades under IMF and World Bank guidance.” Gandy claims that it is these specifically internal and Western processes of restructuring “which decimated the metropolitan economy.”¹⁴ In other words, he claims that Lagos is the endgame of a Western project of laissez-faire or intentional de-modernization (versus something projective), enacted through processes of corruption and indebtedness – a conclusion drawn from Gandy’s explo-

EYAL WEIZMAN, ISRAELI BARRIER WALL. PHOTOCOLLAGE, 2004.
BACKGROUND PHOTO: DANIEL BAUER.



ration of the cash streams in and out of the city. Such a conclusion sadly disentangles the dynamic networks of emergence identified by Koolhaas and the Harvard team, even as it appears to restore a more accurate geo-historical causality of Lagos's current state.

Gandy's analysis might serve as a cautionary tale for entanglements between geography and architecture afoot in contemporary practices. But even when properly researched, or exceedingly critical in mode, other geographic problems rear their heads. Some "geo-architectural" projects, such as Eyal Weizman's work in Israel/Palestine, are lauded by geographers for their brilliant politicization of architecture and planning in geographical literature.¹⁵ But there are some problems of geographic image in this work as well. Weizman draws on many geographical techniques and concepts to build a series of incisive arguments about the role of the built environment in the Israeli/Palestinian conflict; it has expanded the political discussion of architecture, for sure. But the project also includes images that appeal to a type of environmental determinism to articulate some points. A notable (and well-publicized) image authored by Weizman is of the current Israeli barrier wall bisecting a swath of cultivated nature; it appears to suggest the land's seemingly natural interconnectedness. But from the perspective of a radicalized geography (one concerned with the politics of territorial rights), the earth does not speak of a natural desire to connect; the earth does not contain its own political will. This image is tied to a particular political program that might never be realized precisely because representatives of the current Israeli government continue to work the actual ground (in ways better understood by Weizman and the residents of this area than anyone). If research architecture is to be a more critical analytical/theoretical project, as the work of Weizman and his students at Goldsmiths' Centre for Research Architecture suggests, it is not clear whether architects, already shackled by the critical limitations of their own discipline, can simultaneously be the most well-seasoned critical architectural thinkers and turn to geographic data in such a way as to be

15. See, for example, *Cities, War and Terrorism*, ed. Stephen Graham (London: Blackwell, 2004).

also the most critical geographic producers, particularly in the production of incisive geographical images.

Looking back on the history of disciplinary engagements between architecture, geography, and its contemporary iteration, something enormously powerful *does* appear between these two disciplines. If anything, the relation between geography and architecture is linked less by concepts of geology, cartography, data, research, and “scape,” and more specifically through what a whole host of theorists discuss as territory, territoriality, and territorialization.¹⁶ This moves through the long history of “geo-architecture,” and this latter project is neither wholly aesthetic and subjective nor empirical, but rather explorative of the particular material and discursive strategies that tie concepts to the earth – to points of fixity. This particular geographic project is less about architects drawing on maps, or making them, or geographically oriented tables; it is more about architects considering how the architect and the architect’s creations tie concepts to the earth, produce difference on the earth, and foster an earthen political subjectivity. It might be most comprehensible in a cartographic enterprise, but it can take other, less explicitly geo-visual forms. We might discuss the way buildings negotiate society/nature dynamics, cognizant of the truly brilliant critiques of our efforts to be more “sustainable” and “green” that move through contemporary geographical writing. In absorbing geographic concepts we might also review the way architecture provides a populace’s primary conceptualization of the relation between scale and rights – yet another contemporary geographic obsession in the face of fast-diminishing “naturalized” rights. In addition to concepts of individuality, “houses” and “neighborhoods” produce the political context through which we often argue for rights; why not reconceptualize the spatial monads of citizenry with and within architecture? Neither of these examples involves reproducing the image of geography, but something far more interesting and frightening for architecture. This project might rewire cartographic impulses such that buildings no longer simply emerge from maps. Instead, the architectural concept might produce an entirely new cartographic reality. This is the spirit of the most recent form of geo-architecture at its best, and it represents the best possibilities latent within the historical examples.

16. The most influential works in contemporary “human geography” include Gilles Deleuze and Félix Guattari’s two-volume opus *Capitalism and Schizophrenia – Anti-Edipus* (1972) and *A Thousand Plateaus* (1980) – and recent transcriptions and translations of Michel Foucault’s lectures “Security, Territory, Population” (1977-78). Geographical syntheses of these concepts can be found in the work of Erik Swyngedouw, Noel Castree, and Sarah Whatmore.

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